

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Applicant(s): | Cerovic | Docket No.: | 101.00012 |
| Application No.: | 10/780,914 | Group Art Unit: | 3641 |
| Filing Date: | February 17, 2004 | Examiner: | Clement, Michelle R. |
| Title: | Weapon for Lethal and Non-Lethal Uses | | |

Mail Stop Amendment
Commissioner for Patents
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RESPONSE UNDER 37 CFR §1.111

Commissioner:

Applicant responds to the Office Action mailed on June 16, 2006 as follows:

AMENDMENT

Amendment to the Specification

Please replace the originally filed paragraphs with the paragraphs having the same number below. Please add the new paragraph 32.1 after original paragraph 32.

[0003] Implements and accessories have been mounted on weapons. These include sights, flashlights for illuminating the target, and dispensers for dispensing chemical agents toward the target. Rails including the ~~pieattiny~~ picatinny rail provide for mounting of mission specific combinations of implements and accessories.

[0024] Weapon 100 may include a conventional weapon for apparatus 104 and activator 106. For example, weapon 200 of FIG. 2 includes a conventional M16 automatic weapon, well known for military use. Weapon 200 includes stock 202, firing assembly 203, barrel 204, hand grip 206, and sight 208 (e.g., corresponding generally to apparatus 104). A mechanical trigger 205 functions as actuator 106 and may include a safety mechanism, reducing the risk of inadvertent operation of trigger 205. Weapon 200 further includes rail 210 (e.g., a ~~pieattiny~~ picatinny rail) and support 220 (e.g., corresponding generally to support 110). Finally, weapon 200 includes an electronic disabling device 230 (e.g., an integrated implementation corresponding to switches 114, circuit 112, and apparatuses 108 and 110).

[0029] Support 220, of FIGs. 2-6, includes left member 410 and right member 450. Members 410 and 450 are joined by fasteners to simultaneously grasp a stop (e.g., sight bracket and/or bayonet lug 209) (fastener 222); device 230 (fastener 224); and rail 210 and device 230 (fastener 226). Fasteners may be of any number and type including for example, spring loaded pins and threaded screws (as shown), quarter-turn fasteners (and variations such as half turn, up to 720-degree turn), bayonet couplings, clamps, cams, levers, and latches. Spring loading permits separation of members 410 and 450 sufficient to separate device 230 from weapon 100 while maintaining the fasteners 222-226 partially threaded together.

[0031] Support 220 (FIGs. 4 and 6) includes structures that cooperate with a stop. Bracket step ~~Step~~-top 411 and bracket step side 413 may abut bracket surfaces 611 and 613 respectively. Lip 417 partially surrounds bracket 209 at surface 617. Bevel 419 locates bracket

surface 619. Rail step Step-top 423 abuts bracket surface 623. Rail step Step-side 425 may abut rail 210. Channel 427 with wedge shaped grooves 429 accepts rail 210. Screw 222 is in contact with stop surface 621 to maintain surfaces 435 and 635 in abutting contact.

Amendment to the Claims

Below is a complete listing of the claims.

1 – 5 (Cancelled).

6. (Currently amended) A support for attaching a non-lethal implement to a firearm, the firearm having a rail and a stop ~~that is not part of the rail~~, the support comprising:

first means for mechanically coupling the non-lethal implement to the rail; and

second means for coupling the non-lethal implement to the stop to reduce motion of the non-lethal implement along the rail parallel to a direction of delivery of the ~~a~~ lethal force of the firearm.

7. (Currently amended) The support of claim 6 wherein the first means is adapted for coupling to the rail conforms to a picatinny rail.

8. (Currently amended) The support of claim 6 wherein ~~the stop comprises a sight~~ the second means is adapted for coupling to a sight that includes the stop.

9. (Currently amended) A support for attaching a non-lethal implement to a firearm, the firearm having a rail and a stop that is not part of the rail, the support comprising:

a first channel that receives the rail to mechanically couple the non-lethal implement and the rail;

a first abutment surface ~~that abuts the stop~~ and a first fastener that cooperate to confine the stop therebetween;

a first fastener that maintains the first abutment surface against the stop;

a second channel that receives the non-lethal implement; and

a second fastener that retains the non-lethal implement in the second channel.

10. (Currently amended) The weapon of claim 9 wherein the second channel is adapted to receive an implement that delivers a non-lethal force comprising electromuscular stimulation.

11. (Currently amended) The support of claim 9 wherein the first channel is adapted to receive the rail conforms to a picatinny rail.

12. (Currently amended) The support of claim 9 wherein at least one of the first fastener and the second fastener is manually releasable without using a tool.

13. (Previously presented) The support of claim 12 wherein the at least one fastener is released by manually accomplishing a rotary motion of a portion of the fastener to an extent less than 720 degrees.
14. (Previously presented) The support of claim 9 wherein the non-lethal implement delivers non-lethal force from the front of the non-lethal implement and the second channel comprises a second abutment surface that faces a rear surface of the non-lethal implement.
15. (Currently amended) The support of claim 9 wherein:
the support further comprises a first portion and a second portion; and
the first fastener mechanically joins the first portion of the support to the second portion of the support.
16. (Currently amended) The support of claim 9 wherein:
the support further comprises a first portion and a second portion; and
the second fastener mechanically joins the first portion of the support to the second portion of the support.
17. Cancelled.
18. (New) A support for attaching a non-lethal implement to a firearm, the firearm having a rail and a stop that is not part of the rail, the support comprising:
a first member;
a second member coupled to the first member to form an assembly that holds the implement between the first member and the second member, the assembly having a channel that receives the rail; and
a fastener that restricts motion of the assembly with respect to the stop thereby restricting sliding of the channel with respect to the rail.
19. (New) The support of claim 18 wherein the fastener is manually releasable without using a tool.
20. (New) A method performed by a support to maintain attachment and alignment of an implement to a firearm, the method comprising:
grasping the implement;
grasping a rail of the firearm; and
grasping a stop of the firearm that is not part of the rail.
21. (New) The method of claim 20 wherein:

the rail has an axis along a length of the rail; and
grasping the rail registers the implement to the axis.

22. (New) The method of claim 21 wherein registering the implement to the axis aligns the implement in a direction of delivery of lethal force of the firearm.

23. (New) The method of claim 20 wherein grasping the implement comprises fastening a first member of the support to a second member of the support.

24. (New) The method of claim 20 wherein grasping the rail comprises sliding the support onto the rail.

25. (New) A method performed by a support to maintain attachment and alignment of an implement to a firearm, the support comprising a set of structures, each structure of the set being integral to one of the implement and the firearm the method comprising:

sliding a first structure of the set onto a second structure of the set to accomplish alignment in a direction of delivery of a lethal force of the firearm; and

coupling a third structure of the set to a fourth structure of the set to substantially restrict further sliding, the third structure and the fourth structure not part of the first structure or the second structure.

Amendment to the Drawing

Please replace informal FIGs. 1 – 6 on sheets 1 – 6 with formal drawing FIGs. 1 – 6 on replacement sheets 1 – 6.

REMARKS

Upon entry of this Amendment, claims 6 – 24 are pending. Claims 1 – 5 are cancelled without prejudice or disclaimer in response to a restriction requirement by the Examiner and election by the Applicant without traverse. Applicant cancels claim 17 without prejudice or disclaimer. Applicant adds new claims 18 – 25. Claim 6, 9, and 18, 20, and 25 are independent.

The Examiner objects to informalities in drawing sheets 1 – 6.

The Examiner objects to the specification as failing to provide support for claims 6 and 13.

Claims 6 - 17 stand rejected under 35 U.S.C. §112 as indefinite.

Claims 6, 7, 9 and 11-17 stand rejected under 35 U.S.C. §102 as anticipated by U.S. Patent Publication 2002/0100204 to *Kim*. Claims 6 and 8 stand rejected under 35 USC §102 as anticipated by U.S. Patent No. 5,046,277 to *Sanders*.

Claim 10 stands rejected under 35 USC §103 as obvious in light of *Kim* and U.S. Patent No. 6,782,789 *McNulty*.

Amendments to the specification, drawing, and claims traverse the rejections. No new matter is submitted.

Applicant wishes to thank the Examiner for the courtesy extended in the telephone interview on September 20, 2006. No agreement was reached. We discussed the §112 rejections, support for a 720 degree fastener, claims 6 – 17, alleged statements of intended use, differences between the invention and *Kim*, U.S. Patent No. 5,930,935 to *Griffin*, U.S. Patent No. 4,733,489 to *Kurak*, and the Examiner's motivation to combine the references.

Drawing

Annotated sheets 4 and 5 (so labeled) are filed herewith to identify changes made to FIGs. 4 and 5. Addition of label 429 finds support, *inter alia*, for example in originally filed paragraph [0031]. Addition of labels 506 and 508 to FIG. 5 finds support, *inter alia*, for example, in originally filed paragraph [0032].

Specification

Applicant amends paragraphs [0003] and [0024] to correct misspelling. Applicant amends paragraph [0029] to describe an example of the stop as a sight bracket and/or bayonet lug 209. The amendment finds support, *inter alia*, for example, in Fig. 6. Applicant amends paragraph [0031] to distinguish labels 411, 413, 423, and 425. The amendment finds support, *inter alia*, for example, in FIGs. 4 and 6.

Rejection under §112, First Paragraph

The Examiner has taken the position that claim 13 fails to comply with 35 U.S.C. §112, first paragraph as to enablement. Applicant amends paragraph [0029] of the specification. The amendment finds support at least in originally filed claim 13.

Rejection under §112, Second Paragraph

The Examiner has taken the position that claims 6 – 17 are indefinite, under 35 U.S.C. §112, second paragraph because Applicant claims a support for attaching a non-lethal implement to a firearm without reciting the firearm, yet later recites the implement and firearm as if they were positively being claimed. The preamble of claims 6 and 9 defines that “a support” is claimed with reference to a firearm, the firearm being a work piece or environment and not part of the support.

Rejection under §112, Sixth Paragraph

The Examiner requires Applicant to identify in the specification or provide on the record a link between the recited means plus function elements in claim 6 to structures already described in the application as filed in a manner that a person of ordinary skill in the art would recognize which of them perform those functions.

“Coupling” is taught in the specification by examples of at least one of maintaining attachment, maintaining alignment, grasping, registering, abutting, channeling, journaling, fitting, mating, sliding, receiving (the rail), attaching, fastening, fastening facilitating separation, and cooperating. See paragraphs [0027] through [0032].

“Coupling the non-lethal implement to the rail” is accomplished by structures described in paragraph [0031] as “Channel 427 ... accepts rail 210”. Channel 427 accomplishes

registration by sliding onto a rail of the firearm. Other structures that accomplish registration are described in paragraph [0028] as “The support may be registered with each apparatus using any conventional mechanical technique (e.g., abutted, channeled, journaled, or using a key or post fitting a mating structure of the support or the apparatus).”

“Coupling the non-lethal implement to the stop” is accomplished by structures described in paragraph [0031] as “Screw 222 is in contact with stop surface 621 to maintain surfaces 435 and 635 in abutting contact.” Further, in paragraph [0029] as “Support 220, of FIGs. 2-6, includes left member 410 and right member 450 .. joined by fasteners to simultaneously grasp a stop ... [and electronic disabling] device 230. And, in paragraph [0032], “Four posts 511 (551) on each member 410 (450) accept four recesses 505 on each side of device 230.”

Rejection of Limitations as “statements of intended use”

The Examiner has taken the position that the claims make statements of intended use and that such statements, according to MPEP §§2114 – 2115 (8th Ed. Rev. 5), do not serve to patentably distinguish the claimed structures over the prior art. During the interview, the Examiner indicated that the Examiner considered the phrase in claim 9 “that receives the rail” as a statement of intended use. The Examiner suggested a substitute phrase “to receive the rail” or “for receiving the rail” would be considered a proper limitation. Though Applicant agrees that statements of function (“for receiving”) and statements of purpose (“to receive”) are proper, none of the limitations in the pending claims are actually statements of intended use.

To be a statement of intended use, the statement must indicate that an operator of the claimed device performs the function as the use of the device. A statement of function where that function is accomplished by the claimed device is not a statement of intended use by an operator. Because none of the limitations in the pending claims indicate action by an operator, there are no limitations reciting an intended use.

Rejection of Limitations as “functional language”

The Examiner has taken the position in rejecting claims 6 and 8 that these claims impermissibly use functional language to recite a limitation. The Examiner finds support for this position in MPEP §2114 (8th Ed. Rev. 3 p. 2100-62) (citing *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 15 USPQ2d 1525)(“Apparatus claims cover what a device is, not

what a device does.” at 1469)(Fed. Cir. 1990). Regrettably, MPEP §2114 is not a statement of current law as can be appreciated from MPEP §2173.05(g) (p. 2100-221) quoted as follows:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., evidenced by its specific structure or specific ingredients). There is nothing intrinsically wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d at 210, 169 USPQ 226 (CCPA 1971)

The Federal Circuit has followed the reasoning in MPEP §2173.05(g) quoted above. See *Geneva Pharmaceuticals, Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 68 USPQ2d 1865 (Fed. Cir. 2003)(“As explained in *In re Swinehart*, ... a functional limitation covers all embodiments performing the recited function.”); *Caterpillar Inc. v. Detroit Diesel Corp.* 961 F.Supp. 1249, 1252, 41 USPQ2d 1876, 1879 (N.D. Ind. 1996), *aff’d*, 194 F.3d 1336 (Fed. Cir. 1999)(unpublished)(“Patent claims may be drafted in ‘functional’ language, which ‘describ[es] an invention in terms of what it accomplishes rather than in terms of what it is.’”); *Pac-Tec, Inc. v. Amerace Corp.*, 903 F.2d 796, 901, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (in determining whether a patent claim is invalid because anticipated by prior art, it is improper to disregard the preamble and all limitations that include “adapted to”, “whereby”, and “thereby”: case authority, such as *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976), establishes the proposition that “functional language, in cases like the present, cannot be disregarded.”); *Plastic Containers Corp. v. Continental Plastics of Oklahoma, Inc.*, 607 F.2d 885, 203 USPQ 27, 650, 651 (10th Cir. 1979) on remand, 515 F. Supp 834, 214 USPQ 530 (W.D. Okla. 1980), *aff’d in part, reversed in part*, 708 F.2d 1554, 219 USPQ 26 (10th Cir. 1983) (“the idea that functional language *ipso facto* cannot precisely define novelty in structure was laid to rest in *In re Swinehart* . . .”); *Rohm & Haas Co. v. Dawson Chem. Co.*, 557 Supp. 739, 217 USPQ 515 (S.D. Tex. 1983), *rev’d on other grounds sub nom. Rohm & Haas Co. v. Crystal Chem Co.*, 722 F.2d 1556, 220 USPQ 289 (Fed. Cir. 1983) (“The use of functional language to claim an invention is specifically approved by statute, the patent office and the courts, particularly where, as here, it is obviously impossible to enumerate all possible combinations of weeds, crops, and application rates of propanil which will produce the recited useful selective post-emergence activity.”).

It is clear from a reading of *In re Swinehart* that MPEP MPEP §2114 misstates the holding in that case. “There is nothing intrinsically wrong with the use of such a technique [defining something by what it does rather than by what it is] in drafting patent claims. Indeed we have even recognized in the past the practical necessity for the use of functional language.” *Id.* at 212. “It cannot be the law that all functional terms are condemned when used to distinguish a claimed invention from the prior art.” *Id.* at 215.

Accordingly, Applicant asserts that the limitation “that receives a rail” and grammatically similar phrases, may be used to distinguish over the prior art that does not perform the same function.

Rejections under §102

The Examiner rejects claims 6 – 7, 9, and 11 – 17 under 35 U.S.C. §102(b) as being anticipated by *Kim*. The Examiner also rejects claims 6 and 8 under 35 U.S.C. §102(b) as being anticipated by *Sanders*. A *prima facie* case for rejection has not been made at least because no one reference discloses each and every element of the claimed invention. Withdrawal of the rejections is respectfully requested.

Kim does not teach a “means for coupling the non-lethal implement to the stop” where the stop “is not part of the rail” as recited in amended claim 6.

Kim does not teach a “support comprising ... a second channel that receives the non-lethal implement” or “a second fastener that retains the non-lethal implement in the second channel” as in claim 9. *Kim* discloses that “mounting plate assemblies ... may include a single lever platform mount 34 of the type shown in FIGs. 2 and 3” (*Kim* para. [0027]). FIGs. 1 – 3 of *Kim* provide the entire disclosure as to the mounting plate assembly disclosed by *Kim*. The mounting plate in *Kim* is inserted into a cavity in the illuminator. Consequently, there is no teaching of “a second channel.”

Sanders does not teach “means for coupling the non-lethal implement to the stop to reduce motion of the non-lethal implement along the rail” and a “stop that is not part of the rail” as recited in amended claim 6. *Sanders* discloses a mounting device that has a “dove tail groove” (*Sanders* col. 1, l. 66) that attaches to a gun by sliding the groove on a ramp until the mounting device straddles the shotgun barrel (*Sanders* col. 2, l. 17 – 19). The shotgun barrel stops movement of the mounting device on the ramp. The mounting device is affixed to the

ramp using screw 188 (*Sanders* Figure 1; col. 2, l. 6 – 11). Bolt 190 extends to abut the slug barrel to support device 160 (*Sanders* col. 2, l. 22 – 23). Thus, *Sanders* uses the gun barrel to stop sliding of the device on the ramp and bolt 190 to fix the device to the ramp.

Sanders does not teach “coupling to a sight that includes the stop” as recited in claim 8. *Sanders* describes “A gun sight then mounts to a “standard firearm base 170 formed on the upper portion” of the mounting device (col. 1, l. 56 – 58). *Sanders* further discloses that after securing the mounting device to the gun, “sight viewing apparatus may be secured to base 170 ... utilizing mounting provisions thereof according to the teachings of the present invention.” *Sanders* does not provide any additional teaching for mounting the sight to the base side of the mounting device. *Sanders*’ claim 1 discloses “means formed on the upper portion of the body for mounting the sighting apparatus to the body,” but does not disclose the “means formed” in the written description. Thus *Sanders* does not teach at least “means for coupling the implement to the rail” and “a stop that is not part of the rail” as recited in claim 8.

Accordingly, as discussed above, several of the limitations recited in the pending independent claims are not properly found in *Kim*, *Sanders*, or the other art of record. The rejections are traversed.

Rejections under §103

The Examiner has taken the position that claim 10 is obvious in light of a proposed combination of the teachings of *Kim* cited to supply a support and *McNulty* cited to supply an implement that delivers a non-lethal force comprising electromuscular stimulation. As explained below, a *prima facie* case for rejection has not been made at least when any one claimed limitation is wholly absent from the combination of references cited by the Examiner. Withdrawal of the rejections is respectfully requested.

As set forth above, *Kim* does not teach or suggest at least “a second channel” and “a second fastener that retains the non-lethal implement in the second channel” as recited by amended independent claim 9. *McNulty* teaches an eyelet and a pin for coupling the non-lethal device to the lethal device (*McNulty* FIGs. 1 – 3). *McNulty* does not teach or suggest at least “a second fastener that retains the non-lethal implement in the second channel” as recited by amended independent claim 9. Because dependent claim 10 includes every element of claim 9, claim 10 cannot be made obvious by a combination that omits an element of claim 9.

Accordingly, the combination of *Kim* and *McNulty* does not teach or suggest all elements of the claimed invention. The rejection is traversed.

Conclusion

Reconsideration is respectfully requested. Applicant believes the case is in condition for allowance and respectfully requests allowance of the pending claims.

The Examiner is invited to telephone the undersigned at the telephone number listed below if it would in any way advance prosecution of this case.

Respectfully submitted,

Date: October 5, 2006



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